

# **MODEL 200/200P**

# **DUAL CHANNEL POWER AMPLIFIER**

**OWNERS MANUAL** 

# 200/200P OWNERS MANUAL

PERREAUX Model 200P

PERREAUX INDUSTRIES LTD RESERVES THE RIGHT TO CHANGE SPECIFICATIONS FOR THE IMPROVEMENT OF THIS PRODUCT.

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#### INTRODUCTION

Congratulations on your PERREAUX Model 200P purchase. To realise the full potential of your Perreaux you need to appreciate all aspects of its operation.

Before installing the 200P into your system, read the entire manual carefully. Endeavour to understand every detail by familiarising yourself with the controls and features as you read. You will find it easier to install using the relevant sections of this manual as a reference.

We have attempted to explain every feature and operation facet clearly and concisely. Your Perreaux dealer will be happy to assist if you encounter any unforeseen problems.

Read this manual, install your 200P correctly and realise the sonic significance of your investment in Perreaux.

Perreaux products are designed to provide the utmost in sonic realism and electronic reliability with a functional yet elegant appearance, that reflects the care and craftsmanship applied during all stages of construction.

To maintain the consistently high quality that you expect from us, and we expect from ourselves, Perreaux products are essentially hand-crafted.

We maintain the human-link throughout, from design and construction, through to the ultimate test, your music, your system, your ears.

Because we too listen to our products we know that with your Perreaux you will discover many more of the musical secrets we strive to reveal.

Note: All references to Models 200iP are also applicable to Model 200i Classic series

product other than the front panel cleaning instructions.

Care should be taken to avoid the use of solvents for cleaning particularly on plated Classic series products. Use only a soft cleaning cloth with a mild solution of non caustic detergent if necessary. Non plated Classic series products may be cleaned with a polish designed for use on aluminium.

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WARNING: THE 200P IS A HIGH POWERED CONVECTION COOLED AMPLIFIER. THE FINNED OUTER HEAT SINKS MAY BECOME VERY HOT WHEN DELIVERING HIGH VOLUME LEVELS - TO AVOID INJURY CARE SHOULD BE TAKEN NOT TO TOUCH THE HEAT SINKS DURING OPERATION.

#### **SAFETY INSTRUCTIONS**

#### 1. Read Instructions

All safety and operation instructions should be read before the 200P is operated. Keep the Owners Manual in a safe place for future reference.

#### 2. Follow Instructions

All installation, operation and other instructions should be followed.

#### 3. Warnings

All warnings on the 200P and in the Owners Manual should be strictly adhered to.

#### 4. Water and Moisture

The 200P should not be used near water, for example near a bathtub, washbowl, kitchen sink, laundry tub, in a wet basement, near a swimming pool, etc.

#### 5. Rack / Wall / Ceiling Mounting

The 200P should be rack mounted only in a heavy duty rack or stand that is recommended for audio equipment use. Mounting to a wall or ceiling should be via a heavy duty bracket or shelf designed for audio equipment use.

#### 6 Heat

The 200P should be situated away from heat sources such as radiators, stoves, or other appliances that produce excessive amounts of heat. Always ensure the 200P heat sinks have adequate ventilation enabling air circulation both above and below. Do not place the 200P directly onto carpeted surfaces.

#### 7. Power Sources

The 200P should be connected to a mains power supply only of the type described in the operating instructions, or as marked on the rear of the 200P.

#### 8. Power Cord Protection

The mains power supply cord should be routed so that it is not likely to be walked on or pinched by items placed on or against it. Pay particular attention to the cord at power points, convenience receptacles, and the point where it exits from the 200P.

#### 9. Cleaning

When cleaning 'P' series product use luke warm water with a few drops of a mild non caustic detergent .

DO NOT USE SOLVENTS.

#### 10. Non-use Periods

The mains power cord of the 200P should be unplugged from the mains/line outlet when the unit is to be left unused for long periods of time.

#### 11. Object and Liquid Entry

Care should be taken so that objects and/or liquids do not accidentally fall inside the 200P.

#### 12. Damage Requiring Service

The 200P should be serviced by qualified service personnel if any of the following occur:

- a. The mains power-supply cord, and/or plug have been damaged
- b. Objects have fallen, or liquid has been spilt into the 200P
- c. The 200P has been exposed to rain and/or excessive moisture
- d. The 200P does not appear to operate normally, or exhibits a marked change in performance
- e. The 200P has been dropped, or the chassis damaged.

#### 13. Servicing

The user should not attempt to service the 200P beyond those means described in the owners manual. All other servicing should be referred to qualified service personnel.

#### 14. Grounding or Polarisation

Precautions should be taken so that the grounding or polarisation of the 200P are correct, and are maintained through-out the entire system.

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#### IMPORTANT INFORMATION

Always make sure the volume control of your preamplifier or source unit is set to zero and the mains/line supply disconnected from your 200P prior to performing any switching functions or connection alterations of any type to your system. This caution also applies

to the normal use of your Compact Disc player, Tuner, Cassette Deck, etc.

Always ensure that there is adequate ventilation around the 200P and sufficient space to circulate air both below and above the unit. Do not place unit directly onto carpeted surfaces.

### PRODUCT SUPPLIED WITHOUT MAINS PLUG

If your unit comes with a 3-core cable but without a plug, make certain LIVE and NEUTRAL leads are connected correctly to your plug terminals. Check that the terminals are screwed down firmly and no loose strands of wire are present.

# IMPORTANT: The wires of the mains/line lead in this unit are coloured in accordance with the following code:

BROWN LIVE
BLUE NEUTRAL
GREEN/YELLOW EARTH/GROUND

As the wire colours in the mains lead of this unit may not correspond exactly with those coloured markings on the terminals of your plug proceed as follows:

- The wire which is coloured BLUE must be connected to the terminal which is marked with the letter N, or colour coded BLUE or BLACK.
- The wire which is coloured BROWN must be connected to the terminal which is marked with the letter P or L, or colour coded BROWN or RED.

- The wire which is coloured GREEN/YELLOW must be connected to the terminal which is marked with the letter E, or colour coded GREEN/YELLOW or GREEN.

Note: Any modifications to the mains/line voltage setting within your 200P may only be carried out by a qualified Perreaux service agent. Failure to recognise this warning will void any warranty.

#### **FRONT PANEL**

#### 1. POWER ON INDICATOR

The red LED indicator behind the smoked panel on the front panel will illuminate when the power is turned on.

#### **REAR PANEL**

#### 2. UNBALANCED INPUT SOCKETS

These are high quality gold plated sockets which are highly conductive, corrosion resistant, and provide less potential for corrosion induced distortion. Inputs are clearly marked Left and Right. Care should be taken to maintain channel integrity. Refer to section SPECIFICATIONS for detail on input sensitivity and impedance's.

#### 3. BALANCED INPUT SOCKETS

The 200P feature directly driven balanced inputs. The use of good quality balanced line cable into the balanced input cause the input signal to be relatively immune to noise and external effects caused by the use of long interconnect cables, helps reduce hum

loop noise and aids in the cancellation of distortion products.

Balanced Line input pin configuration

Pin 1	EARTH / Ground
Pin 2	HOT / Phase
Pin 3	COLD / Anti-phase

#### 4. INPUT CONFIGURATION SWITCH

This toggle switch allows selection of either the balanced or unbalanced inputs. Input leads should be connected to one type of input only i.e. do not connect to both the unbalanced and balanced inputs at one time.

#### 5. MAINS ON/OFF ROCKER SWITCH

Depress this switch to the right turn power ON. As mute relay circuitry is employed in the 200P, full output is muted for 1 to 2 second after the power switch is actuated. Depress this switch to the left (0) to turn the 200P off at which time the power amplifier outputs will be disconnected.

I = ON 0 = OFF

## 6. MAINS/LINE INPUT RECEPTACLE & FUSE HOLDER

This receptacle accepts the female end of the mains power cord. For more information regarding MAINS/LINE VOLTAGE and connection see the relevant sections.

Located in a small drawer below the MAINS/LINE RECEPTACLE is the MAINS/LINE FUSE. The drawer can only be opened when the mains/line cord is removed See the relevant section for more details on replacement fuses.

#### 7. LOUDSPEAKER OUTPUT TERMINALS

The 200P is equipped with two double sets of output terminals per channel to enable easy hook-up for bi-wiring of loudspeakers or additional loudspeakers. These are high quality gold plated All terminals are clearly terminals. marked and colour coded RED Positive (+) and BLACK Negative (-). polarity must be strictly observed when connecting up loudspeakers, i.e. positive terminal of the 200P to the positive terminal of the loudspeaker. negative terminal of the 200P to the negative terminal of the loudspeaker. quality, preferably gold plated spade or banana type terminals are recommended together with a high quality loudspeaker cable.

The loudspeaker leads, for both left and right channels should be cut to equal lengths and be as short as possible. This is to maintain uniform resistance at the lowest possible level. If the installation demands that the 200P be closer to one loudspeaker than the other, avoid neatly coiling any excess loudspeaker cable as this can create inductance and may affect high frequency signals. Always ensure connections are clean, firm and tight.

#### 8. **SERIAL NUMBER**

See relevant section on page 6.

#### 9. MAINS VOLTAGE / FUSE LABEL

See relevant section on page 6.

NOTE: You will also find on the rear panel written information and relevant precautions. Read and observe the information to ensure your safety and trouble free operation from your Perreaux 200P.

#### CONNECTIONS

Connect your loudspeakers and preamplifier to the 200P by following the numbered code on page 3 & 4.

Follow the sequence given in the next section, INSTALLATION & OPERATION PROCEDURES. This section incorporates all the information in the various areas of this manual to assist installation.

When connecting the 200P to auxiliary equipment terminate the interconnect cables with a red plug for the right channel and white, black or blue for the left channel. Terminate speaker cables using red for positive (+) and black, white or blue for negative (-).

These are the most commonly accepted colour coding combinations in use internationally to help maintain channel and phase integrity (i.e. left to left, right to right, positive to positive, and negative to negative). After making all the connections, lay the leads and cables out in such a way so that loudspeaker leads are well away from the interconnect cables, and both are well separated from mains/line power cables.

#### **INSTALLATION AND OPERATION**

#### **PROCEDURES**

Position all the separate components of your system close enough to your 200P to avoid having to stretch or extend any of the interconnect cables. Always make left and right channel connections while viewing the equipment you are connecting from the front. This will help ensure channel continuity throughout your system. Avoid errors by adopting a systematic approach when connecting your system together. Make all connections logically and carefully.

Note: Always switch off your 200P and ensure that the volume control on your preamplifier is set to zero before making any connections or alterations.

A recommended sequence of connection is as follows:

- Connect your loudspeakers to the output terminals (7) of the 200P. Be careful to maintain channel integrity, i.e. left to left, right to right, and phase integrity, positive (+) to positive (+), and negative (-) to negative (-).
- With the power switch (5) turned off, connect the output from your preamplifier to the 200P input sockets

  (2 or 3). Ensure the position of the input
  - configuration switch (4) is set for the input of interconnect cable being used i.e. balanced or unbalanced.
- Try to keep all inter-linking cables and loudspeaker leads as far apart as possible and well away from all mains/line cables.

- Check that the volume control on your preamplifier or source component is set to zero then turn on the preamplifier.
- Connect the female end of the 200P mains/line cord to the mains/line input receptacle (6). Plug the male end into the closest available power point and switch on the mains/line power.
- Switch the 200P mains power switch (5) to the ON "I " position and listen to each speaker in turn for any undesirable humming or buzzing noises.
- Without programme source material slowly increase the volume on the preamplifier listening for undesirable noises. A certain amount of hiss may become apparent as the gain of the preamplifier is increased, this is normal.

If problems occur, utilise the various fault finding chapters in this manual, or consult your Perreaux dealer. Otherwise your installation is now complete, and ready for you to sit back and enjoy.

# INSTALLATION AND OPERATION PRECAUTIONS

- Leave the top and bottom of the clear at all times allowing adequate airflow around the sides of the unit. Do not site this unit directly on carpet or other soft surfaces. Do not place auxiliary equipment directly on top of the 200P.
- Always operate in a horizontal position.
- Install away from excessive heat and moisture. Do not allow the ambient

- temperature around the 200P to exceed 40° Celsius (105° Fahrenheit.)
- Check the mains/line voltage stated on the rear panel of your .200P Supply voltage must be within 5% +/- of the stated voltage. (See relevant section MAINS-/LINE VOLTAGE)
- Connect all your hi-fi equipment to the same mains/line source to avoid possible earthing problems.
- Do not change the fuse to any type or rating other than that indicated on the rear panel or owners manual.
- Always ensure your 200P is disconnected from the mains/line supply if changing the mains/line fuse.
- Do not drive the inputs with a voltage source greater than that which is required to drive the 200P to its maximum dynamic output.
- Do not run the outputs in series or parallel.
- Do not earth any positive terminal or connect the input to the output earth.
- Do not connect the output of the 200P to any other voltage source.
- Do not run the outputs into the inputs of the 200P.
- Operation of the 200P in the vicinity of a strong radio frequency (RF) source should be countered by RF filtering on all inputs and outputs including the

- mains/line supply. Any doubts or suspicions should be conveyed to your Perreaux dealer. RF interference can cause serious loudspeaker damage.
- Always turn your Perreaux 200P on last and off first making sure the volume control of the preamplifier is set to zero in both cases. This will eliminate the possibility of damage to loudspeakers or fuses due to switching transients.
- Always switch off the 200P and zero the volume control on your preamplifier before making any connection alterations.
- Make all connections logically and carefully, outputs first then inputs, checking that you are maintaining channel integrity.
- Keep all inter-linking cables and loudspeaker leads as far apart as possible and well away from all mains/line cables.

#### **MAINS/LINE VOLTAGE**

It is important that the 200P be operated from the correct mains/line voltage. The unit is factory set for the voltage applicable to the original country of destination. The correct operating voltage is indicated by the MAINS VOLTAGE / FUSE RATING LABEL (9) on the rear panel .The 200P will operate satisfactorily within a voltage variation of up to +/- 5% either side of that voltage at which the unit has been set.

If you require the voltage setting to be altered, e.g. relocation to another area, city or country, or extraordinarily high or low voltages, contact your Perreaux dealer. This modification must only be performed by qualified service personnel.

Note: Always ensure the unit is disconnected from the Mains/Line supply before any covers are removed.

#### MAINS/LINE FUSE

The Perreaux 200P is equipped with a user serviceable mains/line fuse. Above the mains/line cord is the mains/line fuse holder. In the unlikely event of fuse failure always replace with the same type and value fuse. Remember, fuses do not usually blow without a reason. Any doubts about fuse failure should be conveyed directly to your Perreaux dealer.

The fuse ratings are: 100-125V 2SB SLOW BLOW 8A Continuous

200-250V 2SB SLOW BLOW 6A Continuous

Note: Always ensure your 200P is disconnected from the Mains/Line supply before attempting to change the Mains/Line fuse.

#### RAIL FUSES

The Perreaux 200P has 4 internal fuses for amplifier protection. In the unlikely event of internal fuse failure consult your Perreaux dealer. The internal fuses are not user serviceable and only authorised personnel may replace the internal fuses.

Fuse Rating -3AG Normal Acting 6 Amp

#### **SERIAL NUMBER**

All Perreaux units are allocated a unique serial number which are recorded at the factory against build details. If you should require information about your unit, providing the serial number will help achieve a prompt reply. Keep a copy of all your serial numbers in a safe place. The ability to identify and prove ownership can be very useful.

#### **SPECIFICATIONS**

Tested at 120 / 220 / 230 / 240V ac mains voltage after initial 10 minute warm up period

POWER OUTPUT

200 watts RMS per channel continuous both channels driven into  $8\Omega$  from 20Hz to 20kHz at no more than 0.02% THD

300 watts RMS into  $4\Omega$  FREQUENCY RESPONSE  $\pm$  0.25dB from 20Hz to 20kHz

TOTAL HARMONIC DISTORTION
0.02% THD worst case prior to clipping
0.004% THD @ 1KHz

HUM, NOISE
-95dB unweighted referenced to rated output

INPUT SENSITIVITY
Balanced 0.6V RMS
Unbalanced 1.2V RMS

INPUT IMPEDANCE Balanced  $3.3k\Omega$  Unbalanced  $22k\Omega$ 

DYNAMIC HEADROOM
1.9dB
CURRENT OUTPUT
24 Amperes peak per channel

DRIVER STAGE Class A

OUTPUT STAGE Class A / AB

DIMENSIONS (not including handles and terminals)

HEIGHT x WIDTH x DEPTH 88mm x 482mm x 460mm 3.5" x 19.0" x 18.1"

*NETT WEIGHT* 17.0kg (37.5lb)